

CLAIMS

- Sue P1*
- Sue C1*
1. A safety handlebar comprising:
 - a frame having opposing, tubular outer ends;
 - a shaft having first and second shaft ends, the first shaft end being slidably connected with one of the tubular outer ends;
 - a bias member operatively associated with the shaft and the frame so as to bias the second shaft end away from the one tubular end of the frame; and
 - a dampener operatively associated with the shaft and the frame so as to dampen displacement of the second end of the shaft away from the frame.
 2. The handlebar according to claim 1, wherein the bias member is a helical spring.
 3. The handlebar according to claim 1, further comprising a compressible cap coupled with the second shaft end for movement with the second shaft end.
 4. The handlebar according to claim 1 further comprising a cover coupled with the shaft to slidably telescope on the one outer end of the frame.
 5. The handlebar of claim 1 wherein the dampener comprises:
 - a first chamber associated with the second shaft end;
 - a second chamber associated with the first shaft end;
 - a dampening fluid contained within at least one of the first and second chambers;

a first one-way valve fluidly connecting the first chamber to the second chamber that allows the dampening fluid to flow only from the first chamber to the second chamber; and

a second one-way valve fluidly connecting the second chamber to the first chamber that allows the dampening fluid to flow only from the second chamber to the first chamber, the second one-way valve having an opening smaller than an opening in the first one-way valve.

6. The handlebar according to claim 5, further comprising a cover extending over the shaft between the second shaft end and the one outer end of the handlebar frame, a first end of the cover being slidably disposed over the outer end of the frame and a second end of the cover being fixedly coupled with the second end of the shaft so as to telescope with the shaft along the one outer end of the handlebar frame; and

a generally annular wall extending radially outwardly from the outer frame end, a radial end of the wall being slidably disposed against the cover.

7. The handlebar according to claim 6, wherein the first chamber is defined at least in part by the annular wall, the cover, and the shaft.

8. The handlebar according to claim 6, wherein the second chamber is defined at least in part by the annular wall, the cover, and the frame.

9. The handlebar according to claim 5, wherein the dampening fluid is a dampening grease.

10. The handlebar according to claim 5, wherein the bias member is a helical spring.

11. The handlebar according to claim 5, further comprising a compressible cap affixed with the second shaft end.
12. The handlebar according to claim 1 wherein the dampener is: an air flow damper operatively connected to the first shaft such that the air flow damper is in a first, non-fluid flow obstructing orientation when the second end of the shaft is displaced toward the frame, and the air flow damper is in a second, fluid flow obstructing position when the biasing member displaces the second end of the shaft away from the frame so as to slow displacement of the second end of the shaft away from the frame.
13. The handlebar according to claim 12, wherein the biasing member is a helical spring.
14. The handlebar according to claim 12, wherein the air flow damper is a feather washer.
15. The handlebar according to claim 12, further comprising a compressible cap coupled for movement with the second shaft end.
16. A child-safe handlebar comprising:
a generally tubular frame having a tubular outer end;
a shaft having opposing first and second ends, the first shaft end being slidably telescoped with the frame outer end; and
a fluid dampener operatively associated with the frame and the shaft at the outer end to slow movement of the shaft out of the outer end.
17. The handlebar of claim 16 wherein the dampener comprises:
a first chamber associated with the second shaft end; and

a dampening fluid contained within the first chamber;

18. The handlebar of claim 17 further comprising:

a second chamber associated with the first shaft end and at least one valve fluidly coupling the first and second chambers.

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19. The handlebar of claim 17 wherein the dampener comprises:

an air flow damper operatively connected to the first shaft end such that the air flow damper is in a first, non-fluid flow obstructing orientation when the second end of the shaft is displaced toward the frame, and the air flow damper is in a second, fluid flow obstructing position when the biasing member displaces the second end of the shaft away from the frame to slow displacement of the second end of the shaft away from the frame.

20. The handlebar of claim 17 further comprising:

a biasing member coupled between the shaft and the frame so as to absorb energy as the shaft slides into the outer end of the frame.

PATENT DRAWING